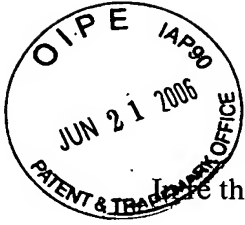


JPW



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re the Application of

Naohide FUWA

Group Art Unit: 3747

Application No.: 10/544,125

Examiner: J. KWON

Filed: August 2, 2005

Docket No.: 124915

For: CALCULATION OF AIR CHARGE AMOUNT IN INTERNAL COMBUSTION
ENGINE

REQUEST FOR RECONSIDERATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In reply to the Office Action mailed March 21, 2006, reconsideration in view of the following remarks is respectfully requested. Claims 2-6 and 8-14 are pending.

Applicant thanks Examiner Kwon for the courtesies extended to Applicant's representatives during the June 15 telephone interview. During the interview, the representatives presented points including those discussed below, and asserted that the claims are patentably distinct from the applied prior art without amendment. The Examiner did not agree, but did not rebut at least the point, discussed in more detail below, that modifying JP '090 as suggested by the Office Action would change the principle of operation of the invention of JP '090.

The Office Action rejects claims 2-6 and 8-14 under 35 U.S.C. §103(a) over JP-A-2002-50090 ("JP '090") in view of U.S. Patent No. 6,405,122 to Yamaguchi. This rejection is respectfully traversed.

As discussed during the interview, JP '090 appears to correct an estimated intake manifold pressure based on closing timing of an intake valve.

The Office Action acknowledges that JP '090 "does not show the use of a pressure sensor to correct the estimated pressure in the intake air passageway." However, the Office Action asserts that this feature would have been obvious to apply in JP '090, in view of Yamaguchi. This is not correct, because such a modification would change the basic principle of operation of JP '090.

Specifically, using a pressure sensor to correct the estimated pressure would make it unnecessary to correct the estimated pressure based on closing timing of an intake valve, which is a basic feature of JP '090. See, for example, the English Abstract of JP '090.

Eliminating such a basic feature, and thus changing the principle of operation, is clearly not consistent with a proper analysis under 35 U.S.C. §103(a). See MPEP §2143.01.VI, entitled "THE PROPOSED MODIFICATION CANNOT CHANGE THE PRINCIPLE OF OPERATION OF A REFERENCE."

Additionally, as discussed during the interview, neither reference discloses that a calculation is corrected based, in part, on a pressure sensor output (i.e., "based on the measurement by the flow rate sensor and measurement by the pressure sensor" (emphasis added), as recited in claims 2 and 8). During the interview, the Examiner asserted that the prior art shows various pressure sensors, but that is not the issue. The point emphasized here is that the claims recite that the calculation model is corrected "based on measurement by the flow rate sensor and measurement by the pressure sensor" (emphasis added), and the prior art does not disclose such a feature.

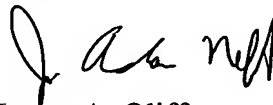
Finally, the Office Action fails to address the part of the claims that recite "correction of the calculation model so that the estimated pressure and pressure measured by the pressure sensor coincide." The prior art simply does not appear to disclose this feature.

For at least the foregoing reasons, Applicant respectfully submits that the claims are patentably distinct from the applied prior art, and that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

For the Examiner's information, attached is a copy of the International Preliminary Report on Patentability received in the PCT application from which this application claims priority.

Should the Examiner believe that anything further is desirable to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

J. Adam Neff
Registration No. 41,218

JAO:JAN/hs

Attachment:
International Preliminary Report on Patentability

Date: June 21, 2006

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
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From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rules 44bis.3(c) and 72.2)

To:

TOKKYO GYOMUHOJIN MEISEI INTERNATIONAL
PATENT FIRM
Mitsui-sumitomo Bank Bldg.
7th Floor
18-19, Nishiki 2-chome, Naka-ku
Nagoya-shi, Aichi 460-0003
JAPON

Date of mailing (day/month/year)
23 February 2006 (23.02.2006)

Applicant's or agent's file reference
PF14J670

IMPORTANT NOTIFICATION

International application No.
PCT/JP2004/000166

International filing date (day/month/year)
13 January 2004 (13.01.2004)

Applicant

TOYOTA JIDOSHA KABUSHIKI KAISHA et al

1. Transmittal of the translation to the applicant.☐

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).

☒

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

EP, KR

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

Masashi Honda

Facsimile No.+41 22 740 14 35

Facsimile No.+41 22 338 70 10

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PF14J670	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/JP2004/000166	International filing date (day/month/year) 13.01.2004	Priority date (day/month/year) 05.02.2003
International Patent Classification (IPC) or national classification and IPC F02D 45/00		
Applicant TOYOTA JIDOSHA KABUSHIKI KAISHA		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>5</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>																									
<p>4. This report contains indications relating to the following items:</p> <table border="0"> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>		<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/000166

Box No. 1

Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-13 _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. 2-4, 8-10 _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* 13, 14 _____ received by this Authority on 29-07-2004
- nos.* 5, 6, 11, 12 _____ received by this Authority on 28-04-2005
- ☒ the drawings:
- sheets 1-8 _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☒ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☒ the claims, nos. 1, 7 _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/000166

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

1. Statement

Novelty (N)

Claims 2-6, 8-14

YES

Claims

NO

Inventive step (IS)

Claims 2-6, 8-14

YES

Claims

NO

Industrial applicability (IA)

Claims 2-6, 8-14

YES

Claims

NO

2. Citations and explanations (Rule 70.7)

The inventions that are set forth in claims 2 to 6 and 8 to 14 are not disclosed in any of the documents that are cited in the international search report, and would not be obvious to a person skilled in the art.